



NATIONAL WILDFOWL COUNTS

NATIONAL CENSUS OF PINK-FOOTED AND GREYLAG GEESE IN BRITAIN,
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by J.S. Kirby & D.G. Salmon

The Wildfowl & Wetlands Trust, Slimbridge, Gloucester, GL2 7BT.

INTRODUCTION

The thirtieth consecutive late autumn/early winter census of Pink-footed Anser brachyrhynchus and Greylag Geese A. anser in Britain took place over the weekend of 18/19th November 1989. Over 100 volunteer ornithologists took part and conducted either dawn or evening flight counts at known roost sites or counted the geese whilst they were feeding in fields during the day. These observations were complemented by additional counts made over the 11th-22nd November in central and north-east Scotland by M.A. Ogilvie on behalf of the WWT. In addition, a small number of observers assessed breeding success by recording the proportion of young birds and brood sizes in sample flocks.

This report provides a brief overview of the results of this census; more detailed information on individual regions or sites is available from the WWT on request.

WEATHER CONDITIONS

The weather over the count weekend was extremely variable. Much of Scotland was shrouded in mist, with drizzle in places, and was mostly dull and overcast making counting difficult or even impossible in some localities. Conditions were poorest in north, central and eastern Scotland. Conditions in western Scotland and England were much better allowing good counts to be made. Wind speeds were light to moderate throughout. It was generally cold.

OVERALL NUMBERS AND DISTRIBUTION

A total of 169 localities were searched for geese during the census period and these held almost 183,000 Pink-footed and just over 83,500 Greylag Geese in total (Table 1). The vast majority of the Pink-footed Geese (ca. 89%) were recorded in just five counties: Grampian, Tayside, Lothian, Lancashire and Norfolk; the number in Lancashire was unprecedented at any time of year. Over 55% of the Greylags were found in Highland and Grampian, with large numbers also in Tayside, Dumfries & Galloway, Strathclyde, Northumberland and Lothian (Table 1). Collectively, these counties held approximately 93% of the Greylags recorded.

PRINCIPAL CONCENTRATIONS

Of the 169 areas checked, just 28 (16.6%) held over 1,000 Pink-footed Geese, and only 10 of these supported in excess of 5,000 birds. These were the Loch of Strathbeg (32,150), Ribble Estuary (28,000), Loch Leven (18,000), Meikle Loch (9,710), Cameron Reservoir (9,500), Snettisham, Norfolk (8,505), Loch of Kinnordy (8,240), Carsebreck Lochs (7,200), Dupplin Loch (7,140) and Aberlady Bay (5,600). The total count for Loch Leven was the highest ever recorded and similarly the numbers at the Loch of Kinnordy were thought to represent an all-time record for this site. For Greylags, 20 localities supported over 1,000 individuals and just three held over 5,000: Loch of Skene (ca. 10,000), Loch Eye (7,373) and Loch of Strathbeg (7,050).

BREEDING SUCCESS

A total of 14,576 Pink-footed Geese from 33 flocks were aged at various localities in Scotland and at Martin Mere in Lancashire (Table 2). The proportion of young recorded in the flocks varied considerably, with date, geographical region, observer differences and probably also flock-size contributing to this variability. Overall, the proportion of young in the flocks was 13.0%. Less information was received on brood sizes but the available data suggested between 1.2 and 2.2 young per pair, and 1.7 per pair overall (Table 2).

Less data was received for Greylag Geese and these were provided by one observer (M.A. Ogilvie) for 9 flocks located in Scotland (Table 3). Combining data from the various localities revealed that 12.3% of all birds aged (2,940) were juveniles and that there

was 2.2 young per pair on average. Though the proportion of young Greylags in the flocks was similar to that recorded for the Pink-footed Goose (see above), there was a greater number of young per pair (2.2 versus 1.7).

DISCUSSION

Despite the fact that the total count of ca. 183,000 Pink-feet revealed by this census represents the highest annual total yet recorded, it is certainly an underestimate of the true population size. Similarly, the total Greylag count (ca. 83,500) was the lowest for over six years. Reporting the results from November 1988, Salmon (1989) gave totals of 176,000 and 105,000 Pink-feet and Greylags, respectively, and considered these figures to be far too low. Indeed, given the relatively high rates of annual survival in the two species (ca. 90%) and high breeding success (Fox et al. 1989), the British wintering populations are undoubtedly much higher at the present time than the figures reported here suggest.

There are numerous reasons why the annual November censuses made in the last two years may be inaccurate, some of which were discussed by Salmon (1989). These censuses have been hampered by poor weather conditions that have prevented good counts being made at certain localities. Additionally, in the light of increasing numbers in each population (e.g. Fox et al. 1989), one might expect food supplies to decrease more rapidly as the winter progresses, encourage geese to remain feeding at night and not to occupy traditional roost sites during the early evening but to utilize them after dark when they cannot be counted. For the same reasons, the geese may be using new resorts which may, as yet, be undiscovered, and may perhaps be dispersing earlier in the winter than has been the case previously. These factors would contribute to the difficulties in censusing the overall populations of each species.

In some localities, counts made in October have revealed far larger numbers of geese than during the November census. Salmon (1989) gives a number of examples from autumn 1988 and the same was true in 1989. For example, in excess of 61,000 Pink-feet were counted in the Borders (mainly at West Water Reservoir and Hule Moss) on 7/8th October compared with ca. 15,000 during the November census (R. Murray, in litt.). Such early movement of Pink-feet through Scotland is typical and, in theory, the birds should be counted elsewhere in Britain for the November census. Very high numbers in Lancashire and in Norfolk in November 1989 confirmed that many birds had already moved south by that time. October counts would almost certainly reveal that a high proportion of geese were still in Scotland and numbers further south would be reduced. However, October counts may also be easier to do and may provide better estimates of the total population because the birds are more concentrated at this time.

Furthermore, food is relatively abundant at this time, day-length is relatively long and shooting disturbance is not too great, all factors which may contribute to a more predictable usage of roost sites by the geese, and consequently more accurate counts. Thus, a comprehensive October census may entail greater accuracy and may provide a more satisfying result for all who take part. However, will there still be large numbers of geese in Iceland at this time? Clearly, the various options regarding the timing of any future national census need to be carefully assessed soon if we are to hope to adequately census the ever increasing Pink-foot and Greylag populations.

REFERENCES

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Table 1. Numbers of Pink-footed and Greylag Geese counted in each county of Britain in November 1989.

	No. of Areas Checked	Pink-footed Goose	Greylag Goose
Orkney	9	0	910
Western Isles	5	0	97
Highland	12	1	18686
Grampian	14	41916	27922
Tayside	28	57110	11130
Central	5	2117	597
Fife	3	9540	1250
Lothian	9	12430	3170
Borders	11	5305	1178
Strathclyde	18	175	4892
Dumfries & Galloway	17	3000	7177
Cumbria	7	174	1852
Lancashire*	8	37690	0
Northumberland	7	56	4460
Lincolnshire	10	0	0
Norfolk	5	13455	250
TOTALS	169	182969	83577

* Includes some birds in North Merseyside.

Table 2. The proportion of young and average brood size in sample flocks of Pink-footed Geese in October/November 1989.

County		Date	No. of Flocks	Total Aged	% Young	No. of Broods	X brood Size
Grampian	a	5 Oct	1	50	12.0	2	-
	a	16 Oct	1	300	20.7	-	-
	a	26 Oct	1	200	18.0	2	-
	a	30 Oct	1	250	16.8	2	-
	a	31 Oct	1	100	17.0	-	-
	a	3 Nov	3	500	16.8	3	-
	a	15 Nov	2	350	16.0	3	-
	b	17 Nov	3	2900	10.1	80	2.05
Tayside	d	4 Oct	1	100	21.0	-	-
	d	7 Oct	1	200	19.5	-	-
	c	11 Oct	1	1400	17.4	-	-
	b	13-15 Nov	9	4023	12.7	147	2.23
Central	b	15 Nov	1	100	11.0	3	1.93
Lothian	b	11 Nov	1	300	9.3	18	1.56
Dum. & Gal.	e	12 Nov	1	1021	16.7	-	-
Lancashire	f	3 Oct	1	816	10.9	-	-
	f	15 Oct	1	659	9.7	53	1.21
	f	17 Oct	1	300	12.7	22	1.73
	f	23 Oct	1	602	13.8	-	-
	f	31 Oct	1	405	7.9	-	-
All data			33	14576	13.0	335	1.72

Note that the letters a-f in the second column of the table identify the different observers. Also, a '-' indicates no data, or too few observations to allow a mean to be calculated.

Table 3. The proportion of young and average brood size in sample flocks of Greylag Geese in November 1989.

County	Date	No. of Flocks	Total Aged	% Young	No. of Broods	X brood Size
Highland	16	1	650	12.3	22	2.05
Grampian	17	1	120	26.7	14	2.29
Tayside	13-15	6	1770	11.4	66	2.23
Central	15	1	400	12.0	24	2.21
All data		9	2940	12.3	126	2.22